

ABSTRACT OF THE DISCLOSURE

For decreasing hardware for correction to compensate for decrease of luminance due to decrease in drive voltage of devices, a plurality of 5 electron-emitting devices are arranged in a matrix pattern and wired by a plurality of row and column lines, a column wiring driving unit applies voltage pulses to the column lines, and row wiring driving units apply voltages to the row lines to switch a 10 row to be selected. The image signal processing unit divides a luminance level of an image signal into plural areas in the signal amplitude direction in response to each split timing signal. There are provided means for detecting frequencies of 15 luminance signals included in the respective amplitude areas, a correction quantity calculating unit for outputting correction signals based on the detected values, and an adding unit for adding the correction signals and luminance signals, which 20 outputs results of addition as electron emission requirements to the column wiring driving unit.